

WaterproofX® 100

Injection hose system

TECHNICAL DATASHEET

Status 10.05.2022

Item no.: S04210120

PROPERTIES

WaterproofX® 100 is a newly developed, certified, one-piece injection hose designed as a hexagonal cross-section. It is made from a specially formulated plastic which features excellent usability characteristics. Following concreting, it functions as a channel for transporting the grouting material along the joint.

Its assured functioning is a result of its hexagonal construction. Despite of its round cross-section, the hose lays fully flush in the joint. This hose is equipped with discharge ports, equally spaced over its entire circumference. This gives the injection hose optimum grouting characteristics.

The thickness of the walls of the injection hose relate specifically to the characteristics of the grout. This ensures that during the injection process the micro-ports open at 1 bar allowing the grouting material to then perform its task of penetrating all areas of the construction joint that require grouting. As a result, a secure and long lasting sealing of the construction joint is achieved.

The micro-ports prevent reliably any infiltration of concrete silt and foreign bodies back into the injection hose itself. After successful injection, the reduction in pressure on the outer coating of the hose which was compressed causes the micro-ports to close.

An optimization of the bore diameter by means of an enlargement results in an improvement when injecting abrasive grouting materials such as ultra fine cements. The innovative design of the star-shaped hose does not allow the duct to be blocked even if the hose is strongly bend.

APPLICATION

By injecting **WaterproofX® 100** hollow spaces can be filled with cementitious grouting after the poured concrete has cured. By injecting either PUR foam resin, PUR injection resin or Polymer gel matrix any construction joint can effectively be waterproofed.

TECHNICAL DATA

Profile:	hexagonal
Colour:	blue transparent
Material composition:	PVC-P special type for extrusion, conforms with ROHS, contains no substance of content according to SVHC-list, Phthalatfree production
Diameter:	external: 13 mm Internal: 8.3 mm
Metre markings at:	1m intervals
Lengths micro-ports:	approx. 3 mm spacing intervals: approx. 10 mm
Temperature range:	- 10° C ÷ + 120° C

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PACKAGING & STORAGE

Dimension

coil: 120 m

pallet: 3.360 m

WaterproofX® 100 has to be stored in a dry place and protected against mechanical damage.

INSTALLATION

The concrete surface must be even, free of loose particles and sharp-edged displacements. Before installing **WaterproofX® 100** ice coverings, standing water and cement sludge have to be removed.

The regular hose length is 8–12 m. Numerous injection cycles are possible about excess lengths up to **30 m** with polymer gel matrix and a singular injection cycle with PUR resin.

WaterproofX® 100 must lie flat on the surface of the first concrete section. The injection hose is secured with clamps or a fixing mesh. The distance between the clamps or fixing points should be 10-15 cm. This should be smaller if circumstances require.

WaterproofX® 100 is in its ideal position when centrally aligned. The distance of the **WaterproofX® 100** hose to the outer edge of the joint must be at least 10cm. At hose section joints, the two hoses are to overlap each other by 15cm and lie parallel one to another at a distance of 3-5 cm. The an.kox **Varioclix®** (patented injection hose point) has to be installed in such a way as to allow access at all times.

Injection:

WaterproofX® 100 is injected after 28 days at the earliest.

Visible flaws along the construction joint are to be plugged with quick-dry cement before injecting.

Injection can be carried out in a number of ways:

- ⇒ Injection using an injector hose (reinforced PVC hose)
- ⇒ Injection using the an.kox **Varioclix®**

- 1.) Check the continuity of the hose by flushing with water or air.
- 2.) The hose is injected via the injection connector (PVC hose or an.kox **Varioclix®**) until traces of the injected material are discharged from the open end. This open end is closed with an injection nipple as soon as the injected material starts to flow freely (without air pockets).
- 3.) The flow and extent of the injection material in the concrete joint can be monitored during the injection process by means of the injection pump's pressure gauge.
- 4.) The injection process continues until constant pressure has been reached. Constant pressure indicates that the concrete joint can take no more grouting material, thus signalling the end of the process.

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- 5.) Injection material in the injection hose is simply flushed out by means of a water pump (flushing pump from a 2-C pump unit). This operation requires hardly any pressure. The injection hose is then once again ready for additional injections. Flushing and reinjecting **WaterproofX® 100** is possible up to a hose length of 30 m, when injecting with Polymer gel matrix.
- 6.) Before injecting with ultra-fine cement (a mineral grout), **WaterproofX® 100** is flushed with water.
- 7.) If **WaterproofX® 100** is injected with EP resin, PUR foam resin or PUR resin, both flushing and reinjecting the hose is not possible.

ACCESSORIES

Item no. S04900001	hose connector
Item no. S04820050	PVC hose 50 m – roll
Item no. S04900004	hose clip
Item no. S04958055	grouting nipple M8/ 55 mm conical-headed nipple
Item no. S04700000	Varioclix®
Item no. S04701005	Varioclix® with metal strip
Item no. S04925100	X1 fixing mesh for injection hose L = 100 cm
Item no. S04910013	an.kox clamp 13 mm
Item no. S04220001	WPX 100 Set 40 m
Item no. S04220002	WPX 100 Set EW 40 m
Item no. S04220003	WPX 100 Set Plus 40 m
Item no. S04220004	WPX 100 Set Light 40 m

Note:

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